WAYNE W. SHARP, P.E.

EDUCATION
M.S. Civil Engineering 1991, Mississippi State University, Starkville, MS
B.S. Civil Engineering 1986, University of Kentucky, Lexington, KY

ACADEMIC EXPERIENCE
2016 - Present	Senior Instructor, Department of Civil Engineering, UL Lafayette
2016 – Present	Research Engineer, Energy Institute of Louisiana, UL Lafayette
2015 – 2016	Adjunct Faculty, Department of Mathematics, Midway University, Midway, KY

NON-ACADEMIC EXPERIENCE
1997 – 2016	Owner, Sharp Engineering, Inc., Winchester, KY
1992 – 1997	Project Manager, Howard K. Bell Consulting Engineers, Inc., Lexington, KY
1987 – 1992	Principle Investigator, US Army Engineer Waterways Experiment Station (currently ERDC), Vicksburg, MS

PROFESSIONAL REGISTRATION
- Professional Engineer (Kentucky #17649, 1993 - present)

CURRENT PROFESSIONAL MEMBERSHIPS
- American Society of Civil Engineers (ASCE)

HONORS AND AWARDS (since 2016)
- 2017 Achievement in Innovation, UL Lafayette (patent)
- 2018 Faculty Member of the Year, Student Outreach, UL College of Engineering
- 2018 Achievement in Innovation, UL Lafayette (patent)
- 2022 Student Outreach Faculty Member of the Year, UL College of Engineering
- 2022 Louisiana Section ASCE, Educator of the Year
- 2022 Acadiana Branch ASCE, Outstanding Civil Engineering Educator Award
- 2024 Louisiana Engineering Foundation, Engineering Faculty Professionalism Award

SERVICE ACTIVITIES
- Faculty Advisor, UL Lafayette ASCE Student Chapter (2017-present)
- Faculty Advisor, UL Lafayette Chi Epsilon Student Chapter (2022- present)

PUBLICATIONS (Peer Review, 11 of 30; Technical Reports 3 of 6)

1. Fortela, Dhan Lord B., Sharp, Wayne W., Revellame, Emmanuel D., Hernandez, Rafael, Gang, Daniel, Zappi, Mark E. "Computational evaluation for effects of feedstock variations on the sensitivities of biochemical mechanism parameters in anaerobic digestion kinetic models," Biochemical Engineering Journal, 143 (2019).

2. Fortela, D.L.; Travis, A.; Mikolajczyk, A.; Sharp, W. Exoplanet Atmosphere Characterization via Transit Spectra Classification. Preprints 2023, 2023081385. https://doi.org/10.20944/preprints202308.1385.v1.

3. Revellame, E. D., Aguda, R., Gatdula, K. M., Holmes, W., Fortela, D. L., Sharp, W. & Zappi, M. E. (2023). Microalgae in bioregenerative life support systems for space applications. *Algal Research*, 103332.
4. Fortela, D. L. B., Travis, A., Mikolajczyk, A. P., Sharp, W., Revellame, E., Holmes, W. & Zappi, M. E. (2023). Quantitating Wastewater Characteristic Parameters Using Neural Network Regression Modeling on Spectral Reflectance. *Clean Technol*, *5*, 1186-1202.
5. Fortela, D. L., Mikolajczyk, A. P., Carnes, M. R., Sharp, W., Revellame, E., Hernandez, R., ... & Zappi, M. E. (2023). Predicting molecular docking of per-and polyfluoroalkyl substances to blood protein using generative artificial intelligence algorithm DiffDock. *BioTechniques*, (0).
6. Chelsea Trahan Zeringue, William M. Chirdon, Wayne Sharp, Daniel Gang, Ahmed Khattab, Rafael Hernandez, Emmanuel Revellame,William Holmes, and Mark E. ZappiIndustrial & Engineering Chemistry Research **2023** *62* (33), 12716-12731, DOI: 10.1021/acs.iecr.3c00963
7. Fortela, D. L. B., Fremin, A. C., Sharp, W., Mikolajczyk, A. P., Revellame, E., Holmes, W., ... & Zappi, M. (2023). Unsupervised Machine Learning to Detect Impending Anomalies in Testing of Fuel Economy and Emissions of Light-Duty Vehicles. *Clean Technologies*, *5*(1),418-435.
8. Shrestha, B., Hernandez, R., Fortela, D. L. B., Sharp, W., Chistoserdov, A., Gang, D. & Zappi, M. E. (2023). Formulation of aSimulated Wastewater Influent Composition for Use in the Research of Technologies for Managing Wastewaters Generated during Manned Long-Term Space Exploration and Other Similar Situations—Literature-Based Composition Development. *BioTech*, *12*(1), 8.
9. Fortela, Dhan Lord B., et al. "Predicting Molecular Docking Affinity of Per-and Polyfluoroalkyl Substances (PFAs) Towards Human Blood Proteins Using Generative AI Algorithm DiffDock." *bioRxiv* (2023): 2023-08.
10. Sharp, Wayne W., Walski, Thomas M. "Predicting Internal Roughness in Water Mains," Journal AWWA, November 1988, Vol. 80.
11. Ormsbee, Lindell E., Walski, Thomas M., Chase, Donald V., Sharp, Wayne W. "Methods for Improving Pump Operation Efficiency," ASCE Journal Water Resources Planning and Management. Vol. 115, No. 2, March 1989.

Technical Reports (3 of 6)

12. Zappi, Mark E., Boyd, Elizabeth, Sharp, Wayne, Zeringue, Chelsae, Fortela, Dhan Lord, Simon, Grayson, Holmes, Sheila. "An Assessment of Production Opportunities for Value-Added Co-Products from Selected Louisiana Seafood Processing Waste Sources", Energy Institute of Louisiana Technical Report, Louisiana Department of Wildlife and Fisheries, Grant # 2000606948.
13. JA Villa, DLB Fortela, W Sharp, M Zappi, S Holmes, R Willis, F Torres, "Enhancing the Carbon Dioxide Sequestering Capacityof Louisiana Highway Right of Way Lands", LTRC Technical Report, August 2022.
14. Sharp, Wayne W., O'Quinn, C. R., and Channell, M.G. (1994) "Reliability, availability, and maintainability testing of high pressure pumping units for the Mobile Army 600 Reverse Osmosis Water Purification Unit," Technical Report EL-94-15, US Army Engineer Waterways Experiment Station, Vicksburg, MS.